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Since 1980, standard bald eagle winter surveys have been conducted in the American Falls area in conjunction with the Idaho bald eagle survey. Data from these surveys were compiled with information from other standard survey routes throughout Idaho from the Raptor Research and Technical Assistance Center, Bureau of Land Management, Boise, Idaho. In 1991, the Bureau of Reclamation initiated a planning process with the U.S. Fish and Wildlife Service to develop a Resource Management Plan for the American Falls Reservoir area. A major objective was to assess the wintering and nesting bald eagle population in the 133 sq. mile study area. Monthly aerial surveys were conducted during the winter of 1992 for bald eagles using a Maule fixed-wing aircraft. The aircraft was equipped with a geo-positioning polycorder (GPS) which acquired electronically obtained locations of bald eagles observed during the survey using three satellites. An on-board computer stored the locations in LatiLong and UTM formats. A geographical information system (GIS) database was developed of the study area using ARC-INFO software. The stored locations of bald eagles were electronically transferred directly to the GIS, and color-coded map overlays were developed using a CalComp printer-plotter. Average number of bald eagles observed during the three surveys in 1992 was 73 (range 63–80). This falls within the range of bald eagles counted in the study area (range 41–114) since surveys were initiated in 1979. Bald eagles first nested successfully in the study area in 1991. In 1992, two pairs of bald eagles established territories and built nests. Both were unsuccessful at fledging young. Bald eagles attempting to nest in this area may be from the expanding population of 33 pairs found in the upper Snake River near Yellowstone National Park. The use of GPS to accurately map bald eagle locations during aerial surveys and the use of GIS to produce map overlays can be powerful tools for resource management agencies.

THE STATUS OF THE BURROWING OWL IN NORTH AMERICA

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The status of the Burrowing Owl (*Speotyto cunicularia*) in North America is reviewed. For each state or province, the breeding population is estimated within an order of magnitude, its trend is given, and factors affecting are presented.

CHARACTERIZATION OF POPULATION AND FAMILY GENETICS OF THE BURROWING OWL BY DNA FINGERPRINTING

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Genetics attributes of the burrowing owl were revealed by DNA fingerprinting with the minisatellite probe pV47-2.

I report here on DNA fingerprint variability, on fingerprint inheritance and rate of mutation, and on population substructuring. Each genetic profile comprised an average of 28.9 highly variable, somatically stable Mendelian markers, and contained single-locus, as well as multilocus, banding patterns, depending on hybridization stringency. Individual fingerprint specificity was minimally 8.4×10^{-17} , with an estimated mutation rate of 0.005. Allelic and genotypic frequencies at the pV47-2 locus indicated genetic substructuring within a pool of several geographically separated burrowing owl populations from western North America, and within a pool of populations from California, as well as inbreeding in an intensively studied California burrowing owl population. These results suggest that nonrandom breeding and population subdivision in this species may be occurring at very fine spatial scales, that levels of inbreeding may be elevated, and that burrowing owl genetic effective population size may be small. If local populations are genetically and demographically isolated from one another, local extinctions may be exacerbated, and recolonization from extant burrowing owl populations will be less likely.

KLEPTOPARASITISM AMONG STELLER'S SEA EAGLES ON THE KAMCHATKA PENINSULA, RUSSIA

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Feeding behavior by wintering Steller's sea eagles (*Haliaeetus pelagicus*) was studied on Kuril Lake on the Kamchatka Peninsula, Russia, from 1987 to 1992. Up to 700 eagles congregate here in winter to feed on sockeye salmon (*Oncorhynchus nerka*) carcasses. Kleptoparasitism (intraspecific food stealing) was studied in relation to food abundance, size of the food carcass, eagle group size, and eagle age ($N = 500$ conflicts). Contrary to expectations, kleptoparasitism was most prevalent during periods of food abundance; it also was more frequent when eagles fed on the largest salmon carcasses. Kleptoparasitism increased exponentially as the size of the feeding group increased. Conflicts in small feeding groups were infrequent (0.5/min), compared to large groups (> 5 /min). Adult eagles were attacked by other eagles of all ages more than twice as frequently as subadults. Although aggression was common during feeding, communal feeding allowed all members of the group to more efficiently find and consume food. The evolution of kleptoparasitism, its energetics costs and benefits, its adaptive advantages, and the influence of eagle plumage coloration will be discussed.

ANNOUNCEMENT OF THE NATIONAL TRAVELING RAPTOR DISPLAY

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